

WHAT IS CLAIMED IS:-

1. A method of outputting original image data that was generated relative to a first color space by an output device that converts image data of a second color space to a visually-perceptible analog thereof, the method comprising:

receiving from a provider, over a communication channel, original image data that was generated according to a first color space;

receiving from said provider, over a communication channel along with said original image data, tag data representing parameters of said first color space;

said output device automatically converting said original image data into said second color space according to said tag data to produce converted image data of said second color space; and

said output device converting said converted image data into a visually-perceptible analog thereof.

2. The method of claim 1, wherein said tag data include a code identifying a color space, primary coordinates, white point, brightness, tone characteristics, color reproduction characteristics, still picture/moving picture identification code, or parameters for image processing.

3. The method of claim 2, wherein said tag data include a combination of said primary coordinates and said tone characteristics, or

wherein said tone characteristics include a gamma value for said first color space and table values for tone conversion, or said color reproduction characteristics include one of RGB

signal levels for specific colors or a combination of hue, chroma and value coordinates.

4. The method of claim 1, further comprising:

monitoring the presence of tag data, representing parameters of a color space, over said communication channel along with said image data;

presuming, if no tag data is received over said communication channel, that said first color space is a default color space; and

said output device converting said original image data into said second color space based upon the presumption that said first color space is said default color space to produce said converted image data of said second color space.

5. A method of outputting original image data that was generated relative to a first color space by an output device that converts image data of a second color space to a visually-perceptible analog thereof, the method comprising:

receiving from a provider, over a communication channel, original image data that was generated according to a first color space;

monitoring the presence of tag data, representing parameters of a color space, over said communication channel along with said image data;

presuming, if no tag data is received over said communication channel, that said first color space is a default color space;

said output device converting said original image data into said second color space based upon the presumption that said first color space is said default color space to produce converted image data of said second space; and

said output device converting said converted image data into a visually-perceptible analog thereof.

6. The method of claim 5, wherein said default color space is

standard RGB (sRGB).

7. The method of claim 5, further comprising:

said output device retrieving data representing parameters of said default color pace, wherein said parameters include

a code identifying a color space,
primary coordinates,
white point,
brightness,
tone characteristics,
color reproduction characteristics,
still picture/moving picture identification code, or
parameters for image processing.

8. The method of claim 7, wherein said parameters include a combination of said primary coordinates and said tone characteristics, or

wherein said tone characteristics include a gamma value for said first color space and table values for tone conversion, or

said color reproduction characteristics include one of RGB signal levels for specific colors or a combination of hue, chroma and value coordinates.

9. The method of claim 3, wherein said hue, chroma and value coordinates are expressed in absolute magnitudes or relative magnitudes.

10. The method of claim 1, wherein

said output device is a display device capable of displaying an image obtained by conversion from the original image data, in a display area forming part of a display screen of the display device; and

said display device generates color space conversion parameters for the display area, based on the tag data associated

with the original image data and area data representing the display area, and converts the original image data into the image data of the second color space representing the image displayed in the display area, based on the generated color conversion parameters.

11. The method of claim 10, wherein said display device is capable of displaying an image obtained by conversion from second original data generated according to a third color space, in a second display area forming another part of the display screen of the display device, said method further comprising:

receiving the second original image data over a communication channel from said provider;

receiving, from said provider, over said communication channel along with said second original image data, second tag data representing parameters of the third color space;

wherein

said display device generates color space conversion parameters for the second area based on second area data representing the second display area, and also based on said second tag data or on the presumption that the third color space is the default color space, and converts the second original image data into the image data of the second color space representing the image displayed in the second display area.

12. The method of claim 10, wherein

said display device is capable of displaying third original image data in part of the display screen outside of the display area, and

said display device generates color space conversion parameters for the outside of the display area, and converts the third original image data into the image data of the second color space representing the image displayed outside of the display area.

13. An image processing system, having an output device that

converts image data of a second color space to a visually-perceptible analog of said image data, to output original image data that was generated relative to a first color space, the apparatus comprising:

a provider of image data;

a communication channel; and

an output device that converts image data of a second color space to a visually-perceptible analog thereof;

said output device being operable to receive said original image data, that was generated according to a first color space, from said provider over said communication channel;

said output device being operable to receive, along with said image data, tag data representing parameters of said first color space from said provider over said communication channel;

said output device being operable to convert said original image data relative to said first color space according to said tag data to produce converted image data of said second color space; and

said output device being operable to convert said converted image data into a visually-perceptible analog thereof.

14. The image processing system of claim 13, wherein said output device is operable to monitor the presence of tag data, representing parameters of a color space, over said communication channel along with said image data;

said output device is operable to presume, if no tag data is received over said communication channel, said first color space as being a default color space; and

said output device being operable to convert said original image data relative to said first color space based upon the presumption that said first color space is said default color space to produce said converted image data of said second color space.

15. An image processing system, having an output device that converts image data of a second color space to a visually-perceptible

analog of said image data, to output original image data that was generated relative to a first color space, the apparatus comprising:

a provider of image data;

a communication channel; and

an output device that converts image data of a second color space to a visually-perceptible analog thereof;

said output device being operable to receive said original image data, that was generated according to a first color space, from said provider over said communication channel;

said output device being operable to monitor the presence of tag data, representing parameters of a color space, over said communication channel along with said image data;

said output device being operable to presume, if no tag data is received over said communication channel, said first color space as being a default color space;

said output device being operable to convert said original image data relative to said first color space based upon the presumption that said first color space is said default color space to produce converted image data of said second color space; and

said output device being operable to convert said converted image data into a visually-perceptible analog thereof.

16. The image processing system of claim 13, wherein said provider includes a computing device and said communication channel includes a direct connection between said computing device and said output device, or

wherein said provider includes a memory device and said communication channel includes a direct connection between said memory device and said output device; or

wherein said provider includes a server and said communication channel includes a network to which said output device is connected.

17. The image processing system of claim 13, wherein said output device includes a component of a personal computing device connected

to said network.

18. The image processing system of claim 17, wherein said network connection is wireless.

19. The image processing system of claim 13, wherein said output device is a first output device and said converted image data is first converted image data, the image processing system having at least a second output device that converts image data of a third color space to a visually-perceptible analog of said image data; and wherein

said provider is operable to transmit said original image data to said second output device;

said provider is operable to transmit said tag data along with said original image data to said second output device; and

said second output device is operable to convert said original image data relative to said first color space according to said tag data to produce second converted image data of said third color space; and

said second output device is operable to convert said second converted image data into a visually-perceptible analog substantially simultaneously with said first output device converting said first converted image data into a visually-perceptible analog thereof.

20. The image processing system of claim 13, wherein

said output device is a display device capable of displaying an image obtained by conversion from the original image data, in a display area forming part of a display screen of the display device; and

said display device includes:

a parameter generating unit generating color space conversion parameters for the display area, based on the tag data

associated with the original image data and area data representing the display area, and

a processing unit converting the original image data into the image data of the second color space representing the image displayed in the display area, based on the generated color space conversion parameters.

21. The method of claim 20, wherein said display device is capable of displaying an image obtained by conversion from second original data generated according to a fourth color space, in a second display area forming another part of the display screen of the display device,

said provider supplies the second original image data;

said display device receives said second original image data over the communication channel from said provider;

said display devices receives, from said provider, over said communication channel along with said second original image data, second tag data representing parameters of the fourth color space;

wherein

said parameter generating unit generates color space conversion parameters for the second area based on second area data representing the second display area, and also based on said second tag data or on the presumption that the fourth color space is the default color space, and

said processing unit converts the second original image data into the image data of the second color space representing the image displayed in the second display area.

22. The image processing system of claim 20, wherein

said display device is capable of displaying third original image data in part of the display screen outside of the display area, and

said parameter generating unit generates color space conversion parameters for the outside of the display area, and

said processing unit converts the third original image data

into the image data of the second color space representing the image displayed outside of the display area.

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